Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Original) An EDF scheduling method comprising:

checking the number of tasks to be scheduled;

allocating priorities to the tasks;

updating current time as the lowest priority; and

processing the tasks in a shortest-deadline-first order from the updated lowest priority on a temporal axis.

2.   (Original) The method of claim 1, wherein it is determined that the number of tasks to be scheduled is less than the number of a priority level.

3.   (Original) The method of claim 2, wherein the number of a priority level is 2^k.

4.   (Currently Amended) The method of claim 2 [[or 3]], wherein if the number of tasks is less than that of the priority level, a priority of each task is determined as a value obtained by dividing a value obtained by dividing a deadline d_i

of a corresponding task by a maximum deadline T_{max} by a specific time unit q.

5.   (Original) The method of claim 4, wherein the maximum deadline is a relative deadline of a task having the longest period among the tasks.

6.   (Original) The method of claim 4, wherein the specific time unit is a value obtained by dividing the maximum deadline by the number of a priority level.

7.   (Original) The method of claim 4, wherein the current time is indicated by a current time indicator.

8.   (Currently Amended) The method of claim 7, wherein the current time indicator is a value obtained by dividing ~~a value obtained by dividing~~ current time of a system by the maximum deadline by the specific time unit.

9.   (Currently Amended) The method of claim 2 [[or 3]], wherein if the number of tasks is less than the number of a priority level, a priority of each task (P_i) is calculated by a following formula of $\left[\dfrac{d_i \bmod T_{max}}{q} \right]$, in which the d_i denotes a deadline of a corresponding task, T_{max} denotes a maximum deadline, and the q denotes a specific time unit.

10.   (Original)   The method of claim 9, wherein the T_{max} is a relative deadline of a task having the longest period among tasks.

11.   (Original)   The method of claim 10, wherein the specific time unit is calculated by a formula of $q = \dfrac{T_{max}}{2^k}$.

12.   (Original)   The method of claim 11, wherein current time is updated by a formula of $\left[\dfrac{(current\ time)\ mod\ T_{max}}{q} \right]$, and the current_time is current time of a system.

13.   (Currently Amended)   The method of claim 2 [[or 3]], wherein if the number of tasks is more than the number of a priority level, tasks are grouped into several task sets.

14.   (Original)   The method of claim 13, wherein one current time indicator is set to each task set.

15.   (Original)   The method of claim 14, wherein a priority (P_i) of a task having a deadline which is in a range of $2^{m-1}T_{min} \sim 2^m T_{min}$ is obtained by a following formula of $(m-1)x + \left[\dfrac{d_i\ mod\ 2^m\ T_{min}}{q(m)} \right]$, wherein the q(m) denotes a time unit relevant

to the mth time indicator, the x denotes the number of a priority level relevant to each current time indicator, and the d_i denotes a deadline of a corresponding task.

16.   (Original) The method of claim 15, wherein the number of the current time indicator is $\left\lceil \dfrac{2^k}{x} \right\rceil$.

17.   (Original) The method of claim 16, wherein a value of the mth time indicator, C(m) is updated by a following formula of $\left\lceil \dfrac{(current\ time) \bmod 2^m\ T_{min}}{q(m)} \right\rceil$.